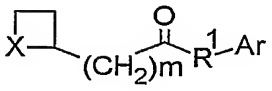
CLAIMS

1.- Compound having the general formula (I):



(I)

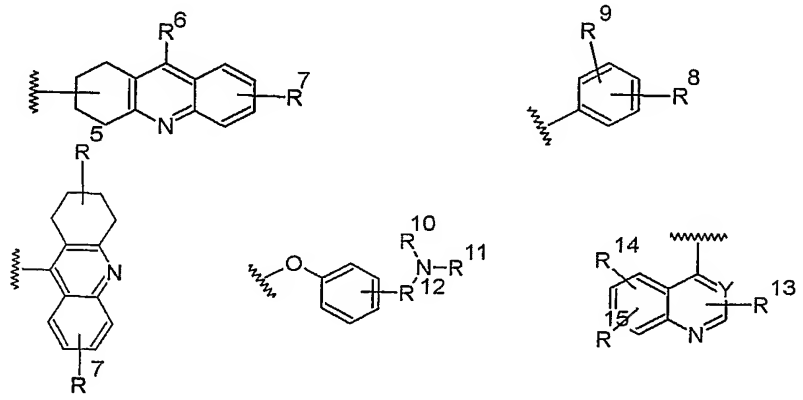
or its geometric isomers, its optically active forms, diastereoisomers, its racemic forms, or its pharmaceutically acceptable salts, wherein R^1 is selected from the group consisting of: C_2-C_9 alkandiamine, C_2-C_6 amine; X is selected from the group consisting of: -S-S-, -S-, $-CH_2-$, $-CH_2-CH_2-$; m is an integer greater than zero and lower than eight; Ar represents an aromatic group; R^1 comprises a nitrogen linked directly to the carbonyl.

2.- Compound according to claim 1, wherein X represents -S-S-.

3.- Compound according to claim 1 or 2, wherein m is an integer greater than two and lower than five.

4.- Compound according to claim 3, wherein m is four.

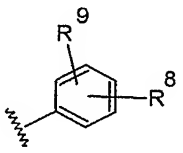
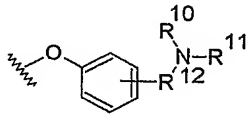
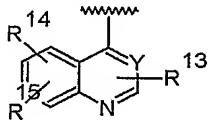
5.- Compound according to one of the previous claims, wherein Ar presents a formula selected from the group consisting of:



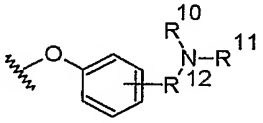
wherein R^5 is selected from the group consisting of: hydrogen, amine, nitroalkyl, $-NH_2$, nitro, halogen, hydroxy; R^6 is

selected from the group consisting of: hydrogen, amine, alkandiamine, $-NH_2$; R^7 is selected from the group consisting of: hydrogen, group having an electron attractor inductive effect; R^{13}, R^{14}, R^{15}, R^8 and R^9 are selected, each independently of the others, from the group consisting of: hydrogen, hydroxy, halogen, alkoxy, alkyl, nitroalkyl, cyanoalkyl, nitro, cyano; R^{10} and R^{11}, are selected, each independently of the other, from the group consisting of: hydrogen, C_1-C_4 alkyl; R^{12} represents a C_1-C_4 alkyl; Y is selected from the group consisting of -CH- and -N-.

6.- Compound according to claim 5, wherein Ar presents a formula selected from the group consisting of:

7.- Compound according to claim 6, wherein Ar presents the formula:

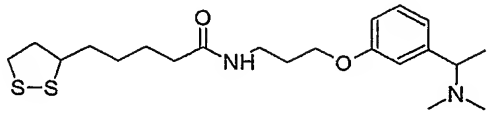


wherein R^1 represents a C_2-C_6 amine.

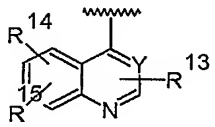
8.- Compound according to claim 7, wherein R^1 presents the formula $-N(CH_2)_n-$, wherein the nitrogen is directly linked to the carbonyl and n is an integer greater than one and smaller than five.

9.- Compound according to claim 8, wherein n is three; R^{10} and R^{11} represent, each, a respective methyl; R^{12} represents an ethyl and is linked at the meta position with respect to the oxygen.

10.- Compound according to claim 9, and having the following formula:



11.- Compound according to claim 6, wherein Ar presents the formula:

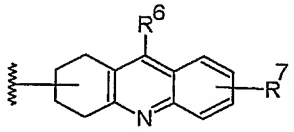


wherein Y represents N, R^1 represents an alkandiamine having the formula $-NR^3-R^2-NR^4-$; R^2 represents a C_2-C_5 alkyl; R^3 and R^4 are selected, each independently of the other, from the group consisting of: hydrogen, methyl; R^{13}, R^{14}, R^{15} are selected, each independently of the others, from the group consisting of: hydrogen, hydroxy, halogen, C_1-C_4 alkoxy, C_1-C_4 alkyl.

12.- Compound according to claim 11, wherein R^2 represents a linear propyl; R^3 and R^4 each represent a hydrogen; R^{13} represents a halogen; R^{14} and R^{15} are selected, each independently of the other, from the group consisting of: halogen, hydroxy, C_1-C_4 alkoxy.

13.- Compound according to claim 11 or 12, wherein R^{13} represents a chlorine; R^{14} and R^{15} represent, each, a respective methoxy.

14.- Compound according to claim 5, wherein Ar presents the formula:

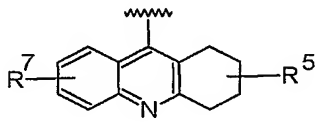


R^7 is selected from the group consisting of: hydrogen, C_1-C_4 alkoxy, halogen; R^6 is selected from the group consisting of: $-NH_2$, alkandiamine, amine; R^1 represents a C_1 amine.

15.- Compound according to claim 14, wherein R^6 is selected from the group consisting of: $-NH_2$ and amine C_1-C_4.

16.- Compound according to claim 14, wherein R^7 is a chlorine situated in position 6; R^6 represents $-NH_2$; R^1 represents $-NH-CH_2-$, wherein the nitrogen is linked to the carbonylic carbon.

17.- Compound according to claim 5, wherein Ar presents the formula:



wherein R^1 represents a C_2-C_6 alkandiamine.

18.- Compound according to claim 17, wherein R^1 represents a C_3-C_4 alkandiamine.

19.- Compound according to claim 17 or 18, wherein R^1 presents the formula $-NR^3-R^2-NR^4-$, wherein R^2 represents a C_2-C_4 alkyl, R^3 and R^4 are selected, each independently of the other, from the group consisting of: hydrogen, methyl.

20.- Compound according to claim 19, wherein R^3 and R^4 represent, each, a respective hydrogen.

21.- Compound according to claim 19 or 20, wherein R^2 represents $-(CH_2)_3-$.

22.- Compound according to one of the claims from 17 to 21, wherein R^7 represents a group having an electron withdrawing inductive effect.

23.- Compound according to claim 22, wherein R^7 is selected from the group consisting of: halogen, C_1-C_4 alkoxy.

24.- Compound according to claim 23, wherein R^7 represents a halogen.

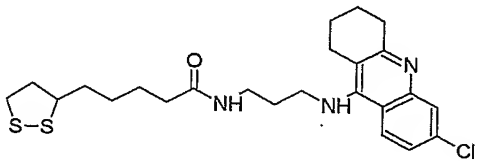
25.- Compound according to one of the claims from 17 to 21, wherein R^7 is selected from the group consisting of: halogen, hydrogen, methoxy; R^5 is selected from the group consisting of: hydrogen, amine, nitroalkyl, halogen, hydroxy.

26.- Compound according to one of the claims from 17 to 25, wherein R^7 is situated in position 6.

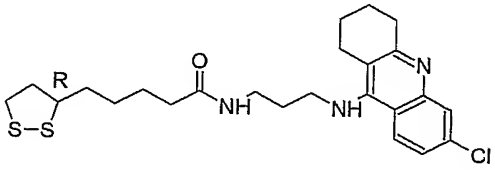
27.- Compound according to one of the claims from 17 a 26, wherein R^5 is selected from the group consisting of: hydrogen, C_1-C_4 amine, C_1-C_4 nitroalkyl, $-NH_2$, nitro, halogen.

28.- Compound according to one of the claims from 17 to 26, wherein R^5 is selected from the group consisting of: hydrogen, halogen.

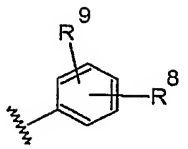
29.- Compound according to claim 28, and having the following formula:



30.- Compound according to claim 29, in form R:



31.- Compound according to claim 6, wherein Ar presents the formula:



wherein R^1 represents a C_3-C_9 alkandiamine.

32.- Compound according to claim 31, wherein R^1 represents a C_6-C_8 alkandiamine.

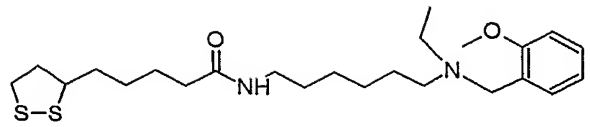
33.- Compound according to claim 31 or 32, wherein R^1 presents the formula $-NR^{16}-R^{17}-NR^{18}-R^{19}-$, wherein R^{19} is linked to Ar and $-NR^{16}$ is linked to the carbonylic carbon; R^{17} is a C_2-C_7 alkyl; R^{16} and R^{18} are selected, each independently of the other, from the group consisting of: C_1-C_3 alkyl, hydrogen; R^{19} represents a C_1-C_3 alkyl.

34.- Compound according to claim 33, wherein R^{17} is a C_3-C_6 alkyl; R^{16} represents a hydrogen; R^{18} is selected from the group consisting of: ethyl, methyl, hydrogen; R^{19} represents a methyl.

35.- Compound according to one of the claims from 31 a 34, wherein R^9 is selected from the group consisting of: hydrogen, hydroxy, halogen, C_1-C_4 alkoxy; R^8 is selected from the group: hydroxy, halogen, C_1-C_4 alkoxy.

36.- Compound according to claim 35, wherein R^9 represents a hydrogen and R^8 represents a methoxy situated in ortho or meta position with respect to the remaining part of the compound.

37.- Compound according to claim 36, and having the following formula:



38.- Compound having the general formula (I), as defined in any one of the claims from 1 to 37, for use as a medicament.

39.- Use of a compound having the general formula (I), as defined in any one of the claims from 1 to 37, for the production of a pharmaceutical preparation for the treatment of Alzheimer's disease.

40.- Use of a compound having the general formula (I), as defined in any one of the claims from 1 to 37, for the production of a pharmaceutical preparation for the treatment of Alzheimer's disease in mammals.

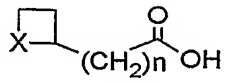
41.- Use of a compound having the general formula (I), as defined in any one of the claims from 1 to 37, for the production of a pharmaceutical preparation for the treatment of pathologies characterised by deposits of β-amiloid (Aβ) in mammals.

42.- Pharmaceutical preparation comprising a compound having general formula (I), as defined in any one of the claims from 1 to 37, or a pharmaceutically acceptable salt, and an excipient and/or pharmaceutically acceptable diluent.

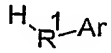
43.- Method for the treatment of Alzheimer's disease in a mammal; the method comprises administering to said mammal an efficacious quantity of a compound having general formula (I), as defined in any one of the claims from 1 to 37.

44.- Method for the synthesis of a compound having general formula (I), as defined in any one of the claims from 1 to 37,

comprising an addition phase wherein a compound having the general formula (II):



is reacted with a compound having the general formula (III):



in basic conditions.